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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/820,539

Applicant(s)

KATZER ET AL.

Examiner

ISAAC T. TECKLU

Art Unit

2192

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

1. Claims 1-23 have been reexamined.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Mullins (US 7,149,730 B2).

Per claim 1 (Currently Amended), Mullins discloses a system for decoupling commercial-off-the-shelf software applications from data stores, the system comprising:
a plurality of commercial-off-the-shelf software applications each operable with one of a

plurality of first data stores (col. 2:30-40 "... accessing multiple database by multiple object applications ..." and e.g. Figure 5 and related text), each of the plurality of commercial-off-the-shelf software applications providing output compatible with one of the plurality of first data stores (col. 6:35-45 "... software application in a manner compatible with relational data stores ...");

a plurality of second data stores (col. 8:55-65 "... data stores ...");

at least one processor;

a listener, recorded on a computer readable medium, when executed by the at least one processor, to receive the output from the commercial-off-the-shelf software application (col. 4:40-50 "... access the database directly through a database driver ..." and col. 12:45-50 "... using a JDBC driver to which is passed data store access code 205 of Figure 5" and col.27:15-30 and e.g. Figure 7, Abstraction Layer1 and related text);

a translator, recorded on a computer readable medium, in communication with the ~~plurality of commercial-off-the-shelf software applications~~ listener and the plurality of second data stores (col. 29: 20-30 "...for translating between a wide variety of different data formats ..."), the translator, when executed by the at least one processor, to receive the output and configured operable to translate the output from the at least one of the of commercial-off-the-shelf software applications for storage by one of the plurality of second data stores (col. 8:1-15 "... translate data between each of an object database, a relational database...").

Per claim 2 (Currently Amended), Mullins discloses the system of Claim 1, further comprising a data access layer recorded on a computer readable medium in communication with the translator and when executed by the at least one processor to determine where to direct the output from one of the commercial-off-the-shelf software applications to one of the plurality of second data stores (e.g. Figure 1, 600 and col. 8:50-60 "... an abstract layer ... data stores ..." and col. 9:1-10 "... adapter abstraction layer 600 of Figure 1 ..." and col. 13:30-40 "... specific adapter and data object ... specific data stores supporting appropriate reference handling ...").

Per claim 3, Mullins discloses the system of Claim 2, wherein the data access layer maintains an enterprise data model including a data map of where to direct the output of each of the commercial-off-the-shelf software applications (col. 3:25-35 "... map to both the primary and secondary databases in order to successfully implement a dynamic transient memory ..." and e.g. Figure 2, 1C and related text).

Per claim 4, Mullins discloses the system of Claim 3, wherein the data access layer receives the translated output from the translator and directs the translated output to one of the plurality of second data stores (e.g. Figure 1, 600 and 302-322 and related text).

Per claim 5 (Currently Amended), Mullins discloses the system of Claim 1, wherein a first commercial-off-the-shelf software application of the plurality of commercial-off-the-shelf software applications provides a first output in a first relational database format (e.g. Figure 3, Relational Database and related text) and wherein the translator translates the first output to a

second relational database format (col. 36:30-40 "... data source object database such as Oracle ...").

Per claim 6 (Currently Amended), Mullins discloses the system of Claim 5, wherein a second commercial-off-the-shelf software application of the plurality of commercial-off-the-shelf software applications is operable to provide a second output in an older version of a first relational database format (col. 20:45-55 "... older than the version already in the database ...") and wherein the translator is operable to translate the second output to a newer version of first relational database format (col. 20:40-50 "... newer version of a map ...").

Per claim 7, Mullins discloses the system of Claim 1, wherein a first commercial-off-the-shelf software application of the plurality of commercial-off-the-shelf software applications is operable to provide a first output in an older version of Oracle and wherein the translator is operable to translate the first output to a newer version of Oracle (col. 20:40-50 "... newer version of a map ...").

Per claim 8, Mullins discloses the system of Claim 1, wherein at least one of the second data stores is associated with one of the plurality of first data stores (col. 8:55-65 "... data stores ...").

Per claim 9, Mullins discloses the system of Claim 8, wherein the at least one of the second data stores is further defined as a newer version data store of one of the plurality of first data stores (col. 20:40-50 "... newer version of a map ...").

Per claim 10 (Currently Amended), Mullins discloses the system of Claim 9, wherein at least one of the second data stores is further defined as a newer version of an relational database of first vendor and wherein one of the plurality of first data stores is further defined as an older version of the relational database of first vendor (col. 20:45-55 "... older than the version already in the database ...").

Per claim 11 (Currently Amended), Mullins discloses the system of Claim 9, wherein at least one of the second data stores is further defined as a newer version of a relational database of a second vendor and wherein one of the plurality of first data stores is further defined as an older version of the relational database of the second vendor (col. 20:45-55 "... older than the version already in the database ...").

Per claim 12, Mullins discloses the system of Claim 1, wherein the plurality of commercial-off-the-shelf software applications are each operable with only one of a plurality of data stores, each of the plurality of commercial-off-the-shelf software applications providing output compatible with only one of the plurality of data stores (col. 6:35-45 "... software application in a manner compatible with relational data stores ...").

Per claim 13 (Currently Amended), Mullins discloses a system for maintaining compatibility of commercial-off-the-shelf software applications with data stores, the system comprising:

a commercial-off-the-shelf software application operable with only a first data store, the commercial-off-the-shelf software application providing an output compatible with only the first data store (col. 6:35-45 "... software application in a manner compatible with relational data stores ...");

at least one processor;

a listener, recorded on a computer readable medium, when executed by the at least one processor, to receive the output from the commercial-off-the-shelf software application (col. 4:40-50 "... access the database directly through a database driver ..." and col. 12:45-50 "... using a JDBC driver to which is passed data store access code 205 of Figure 5" and col.27:15-30 and e.g. Figure 7, Abstraction Layer1 and related text);

a translator, recorded on a computer readable medium, in communication with the listener when executed by the at least one processor to receive the output and configured to translate the output (col. 29: 20-30 "...for translating between a wide variety of different data formats ...");

a data access layer, recorded on a computer readable medium, in communication with the translator and executed by the at least one processor to determine, based on an enterprise data model, where to direct the output of the commercial-off-the-shelf software applications (e.g. Figure 1, 600 and col. 8:50-60 "... an abstract layer ... data stores ..." and col. 9:1-10 "...

adapter abstraction layer 600 of Figure 1 ...” and col. 13:30-40 “... specific adapter and data object ... specific data stores supporting appropriate reference handling ...”);

a wrapper recorded on a computer readable medium, when executed by the at least one processor, to receive the translated output from the data access layer and to wrap the translated output based on a storage format (col. 16:1-10 “... XA component often wrappers...”); and

a second data store based on the storage format and configured to receive and store the wrapped and translated output (col. 8:1-15 “... translate data between each of an object database, a relational database...”).

Per claim 14 (Currently Amended), Mullins discloses the system of Claim 13, wherein the second data store is a newer version data store of the first data store and a different vendor database than the first data store (col. 20:40-50 “... newer version of a map ...”).

Per claim 15 (Currently Amended), Mullins discloses the system of Claim 13, wherein the listener simulates a driver that is configured to access the first data store (col. 8:1-15 “... translate data between each of an object database, a relational database...”).

Per claim 16 (Currently Amended), Mullins discloses a system for integration of commercial-off-the-shelf software applications and databases, the system comprising:

a commercial-off-the-shelf software application operable with a first data store, the commercial-off-the-shelf software application providing an output compatible with the first data store (col. 6:35-45 "... software application in a manner compatible with relational data stores ...");

at least one processor;

a listener, recorded on a computer readable medium, when executed by the at least one processor, to receive the output from the commercial-off-the-shelf software application (col. 4:40-50 "... access the database directly through a database driver ..." and col. 12:45-50 "... using a JDBC driver to which is passed data store access code 205 of Figure 5" and col.27:15-30 and e.g. Figure 7, Abstraction Layer1 and related text);

a translator, recorded on a computer readable medium, in communication with the ~~plurality of commercial-off-the-shelf software applications~~ listener and the plurality of second data stores, the translator, when executed by the at least one processor, to receive the output and configured operable to translate the output (col. 29: 20-30 "...for translating between a wide variety of different data formats ...");

a second data store operable to receive and store the translated output (e.g. Figure 1, 600 and col. 8:50-60 "... an abstract layer ... data stores ..." and col. 9:1-10 "... adapter abstraction layer 600 of Figure 1 ..." and col. 13:30-40 "... specific adapter and data object ... specific data stores supporting appropriate reference handling ...");

a service broker, recorded on a computer readable medium, when executed by the at least one processor, operable to maintain a record of transaction output from the commercial-off-the-

shelf software application and stored in the second data store, the service broker further configured to roll-back failed transactions (col. 31:1-15 "... record upon transaction completing... including commit or roll-back...").

Per claim 17 (Currently Amended), Mullins discloses the system of Claim 16, further comprising a data access layer recorded on a computer readable medium in communication with the translator and when executed by the at least one processor, to determine, based on an enterprise data model, where to direct the output of the commercial-off-the-shelf software applications (e.g. Figure 1, 600 and col. 8:50-60 "... an abstract layer ... data stores ..." and col. 9:1-10 "... adapter abstraction layer 600 of Figure 1 ..." and col. 13:30-40 "... specific adapter and data object ... specific data stores supporting appropriate reference handling ...").

Per claim 18, Mullins discloses the system of Claim 16, wherein the commercial-off-the-shelf software application is operable with only the first data store, and wherein the commercial-off-the-shelf software application provides the output compatible with only the first data store (col. 6:35-45 "... software application in a manner compatible with relational data stores ...").

Per claim 19 (Currently Amended), Mullins discloses the system of Claim 16, wherein the service broker further comprises:

a transaction data store configured to maintain a record of the output by the commercial-off-the-shelf software application (e.g. Figure 1, 600 and col. 8:50-60 "... an abstract layer ...

data stores ...” and col. 9:1-10 “... adapter abstraction layer 600 of Figure 1 ...” and col. 13:30-40 “... specific adapter and data object ... specific data stores supporting appropriate reference handling ...”);

an exception handler configured to identify a failed transaction and communicate with the transaction data store to restore the second data store to a state prior to the failed transaction (col. 39: 10-15 “... if there is an error in the pre-processing ..”).

Per claim 20 (Currently Amended), Mullins discloses the system of Claim 19, further comprising a data warehouse recorded on a computer readable medium and wherein the data warehouse when executed by the at least one processor, is asynchronously updated with the output from the commercial-off-the-shelf software application (e.g. Figure 7, 3B and related text).

Per claim 21, Mullins discloses the system of Claim 19, wherein a compensating transaction is used to restore the failed transaction (col. 35:30-40 “... failed ... utilizing the same cache in this instance ...”).

Per claim 22, Mullins discloses the system of Claim 21, wherein an XA transaction is used in combination with the compensating transaction to restore the failed transaction (col. 5:35-40 “... utilize the transaction coordination facilities ...” and col. 16:1-10 “... passed the XA ...”).

Per claim 23, Mullins discloses the system of Claim 19, further comprising:

a data warehouse operable to maintain data (col. 2:30-40 "... accessing multiple database by multiple object applications ..." and e.g. Figure 5 and related text);

a query processor to manage transaction processing of data requests from the commercial-off-the-shelf software application (col. 5:55-60 "... transaction monitor ..."); and

a metadata repository maintaining a logical data model related to the data, the metadata repository instructs the query processor regarding handling of the data requests from the commercial-off-the-shelf software application and between the second data store and the data warehouse (col. 6:10-20 "... repository file collection ... repository based mapping ...").

Response to Arguments

4. Applicant's arguments filed 07/02/08 have been fully considered but they are not persuasive.

Applicant argues: "Mullins does not anticipate a listener that receives output from commercial-off-the-shelf software applications and a translator in communication with the listener to receive the output and configured to translate the output." (pages 17 and 21).

Examiner responses: It appears Applicant has failed to appreciate the "teachings" of Mullins and all that is inherent therein. Applicant repeatedly argues that Mullins fail to disclose "a listener that receives output from commercial-off-the-shelf software applications and a

translator in communication with the listener to receive the output and configured to translate the output". The examiner disagrees. For instance, the following column clearly discloses the functionality of listener and translator as recited in the claim.

"A translation or abstract layer communicates with at least one JDBC (relational database driver) and at least one primitive Extended Java Bean (EJB) construct. The function of such a translation layer (generally called the O/R layer in CocoBase documentation, for example) is to translate object-based queries for the data into queries that JDBC can, translate into queries for a relational database. In a preferred embodiment, the translation layer can generate an SQL string (or strings) based upon the object-based queries, which can be passed to at least one JDBC, which JDBC can then generate an SQL statement from the SQL string. Similarly, the abstract layer accepts results from the queries and provides them to one or more of the EJB constructs in a suitable object format". (emphasis added, col.27:15-30).

" In the system of FIG. 7, steps 1(a) and 2(a) are carried out in the same manner as in the process of FIG. 1. It should be noted that the invention of FIG. 7 does not require that only objects be used to obtain data from relational databases. Rather, virtually any type of database can be accessed by virtually any type of application. However, for purposes of presenting a coherent example, translation relational database to objects required by an application will continue to be used. Also, as with the FIG. 1 embodiment, an abstract or translation layer is used to receive the request for data related to the objects provided by the object application. It should be noted that the abstract layer, which carries out much of translation activity can be constituted in a number of different ways." (emphasis added, col.29:50-65).

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ISAAC T. TECKLU whose telephone number is (571)272-7957. The examiner can normally be reached on M-TH 9:300A - 8:00P.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Isaac T Tecklu/
Examiner, Art Unit 2192

/Tuan Q. Dam/
Supervisory Patent Examiner, Art Unit 2192